

ABSTRACT OF THE DISCLOSURE

An apparatus for compensating for optical loss includes a plurality of optical fibers joined
5 to form a plurality of output ports and a fiber junction. A signal amplification device is
positioned between the fiber junction and each of the plurality of output ports to communicate
with the plurality of optical fibers. An optical transmission signal entering the input port of the
apparatus is equally divided at the fiber junction and guided by separate optical fibers toward
each of the output ports. Each signal amplification device communicates with the fibers to
10 amplify the optical signals as they pass between the fiber junction and the output ports to
compensate for the coupling and other losses experienced by the optical signals due at least in
part to the use of the apparatus itself.